



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

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MEMORANDUM

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SUBJECT: **Tetraconazole:** Drinking Water Exposure Assessment for Proposed New Uses on Fruiting Vegetables (Crop Group 8-10) and Cucurbit Vegetables (Crop Group 9)

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The Environmental Fate and Effects Division (EFED) has completed its drinking water exposure assessment for the proposed new uses of tetraconazole on fruiting vegetables (Crop Group 8-10) and cucurbit vegetables (Crop Group 9). Proposed maximum use patterns for the proposed uses are in **Table 1**. None of the proposed uses will result in higher estimated drinking water concentrations (EDWCs) than were calculated in the previous drinking water exposure assessment (DP barcode 417463; USEPA, 2014) because previously calculated EDWCs were based on the maximum use pattern for the current use on pecans (four applications at 0.125 lbs a.i./acre), which has higher single and annual application rates than those of the proposed uses. Therefore, the EDWCs from the previous assessment (120 µg/L for acute exposure and 118 µg/L for chronic exposure; **Table 2**) remain unchanged for this assessment.

Table 1. Proposed Tetraconazole Use Patterns					
Use	Max. Single App. Rate (lbs a.i./A)	Max. Annual App. Rate (lbs a.i./A)	Min. App. Interval (days)	Application Type	Label
Fruiting Vegetables	0.0625	0.1250	7	Aerial Ground Chemigation	EPA Reg. No. 80289-8 EPA Reg. No. 80289-EE
Cucurbit Vegetables	0.0625	0.1880	7	Aerial Ground Chemigation	EPA Reg. No. 80289-8 EPA Reg. No. 80289-EE
Label Notes: Do not make more than 2 sequential applications before alternating to another fungicide with a different mode of action.					

Table 2. Maximum Drinking Water Exposure Concentrations for Current and Proposed Tetraconazole Uses				
Drinking Water Source	Crop Scenario	1-in-10 year acute (µg/L)	1-in-10 year chronic (µg/L)	30- year average (µg/L)
Surface Water	GA Pecan ¹ (aerial)	11	--	--
	MN Sugarbeet (chemigation)	--	5.5	--
	NC Peanuts ¹ (aerial)	--	--	4.1
Ground Water	NC Cotton ² (pecan use)	120	118	

¹ Previously reported maximum EDWCs generated using PRZM/EXAMS model for aerial use on pecans and peanuts (US EPA 2008; D347085, D350213) with a revised PCA factor of 0.91.

² Highest EDWCs generated using PRZM-GW model with a 100-year simulation of 4 foliar applications of 0.125 lb. a.i./acre for a maximum annual rate of 0.5 lbs a.i/A for pecans (Eminent®ESP (EPA Reg. No.80289-18).

Note: Value in italics denotes the post-breakthrough average (chronic) concentration.

References

USEPA. 2014. Tier II Drinking Water Assessment for the Proposed Tetraconazole Use on Sugarbeet. DP barcode 417463. U.S. Environmental Protection Agency, Office of Chemical Safety and Pollution Prevention, Environmental Fate and Effects Division. Memorandum to the Health Effects Division and Registration Division. March 27, 2014.